

TWO MEASURES OF PREFERENCE DURING FORCED-CHOICE ASSESSMENTS

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A forced-choice preference assessment was conducted in which two dependent measures were used to select preferred stimuli: (a) approach responding and (b) latency to the first aberrant response. Stimuli identified as preferred based on both dependent measures were then evaluated during treatment. The results suggested that latency may be a useful measure in the selection of preferred stimuli during forced-choice assessments.

DESCRIPTORS: forced choice, preference assessment, hand mouthing

One method that has been successfully used to identify reinforcers for persons with disabilities is the forced-choice procedure (Fisher et al., 1992). This procedure involves two steps. First, stimuli are presented in pairs, and preferred stimuli are selected based on the relative frequency of an approach response. Second, the results obtained during Step 1 are validated by demonstrating that stimuli approached most frequently serve as potent reinforcers for other responses. In the present investigation, we examined an additional dependent measure for identifying preferred stimuli during forced-choice assessments: the latency between stimulus presentation and the first occurrence of aberrant behavior. We provide two case examples in which approach behavior and latency were used to select preferred stimuli. The stimuli selected as preferred were then used as positive reinforcers during treatment.

METHOD: Subjects and settings. The participants were Rick, a 7-year-old male, and Trina, a 3-year-old female, both diagnosed with profound mental retardation. Rick was also diagnosed with significant hypotonia and was legally blind. Both children engaged in hand- and object-mouthing behavior, and Rick also engaged in eye gouging and repetitive hand wringing. For both children, aberrant behavior occurred throughout the day, and a maintaining consequence was not identified during functional analyses.

For Rick, sessions were conducted by unit staff in a classroom located on a hospital inpatient unit. For Trina, sessions were conducted in the living room of her home. Trina's evaluation was completed by her mother with direct consultation from the first author.

Forced choice. Sessions were videotaped and data were collected on approach to stimuli and latency to first aberrant response. Interobserver agreement was computed by dividing agreements by agreements plus disagreements and multiplying by 100%. Interobserver agreement was assessed during 80% of the stimulus presentations. For latency, an agreement was scored if the time recorded across observers was within 1 s. Interobserver agreement for both measures was 100%.

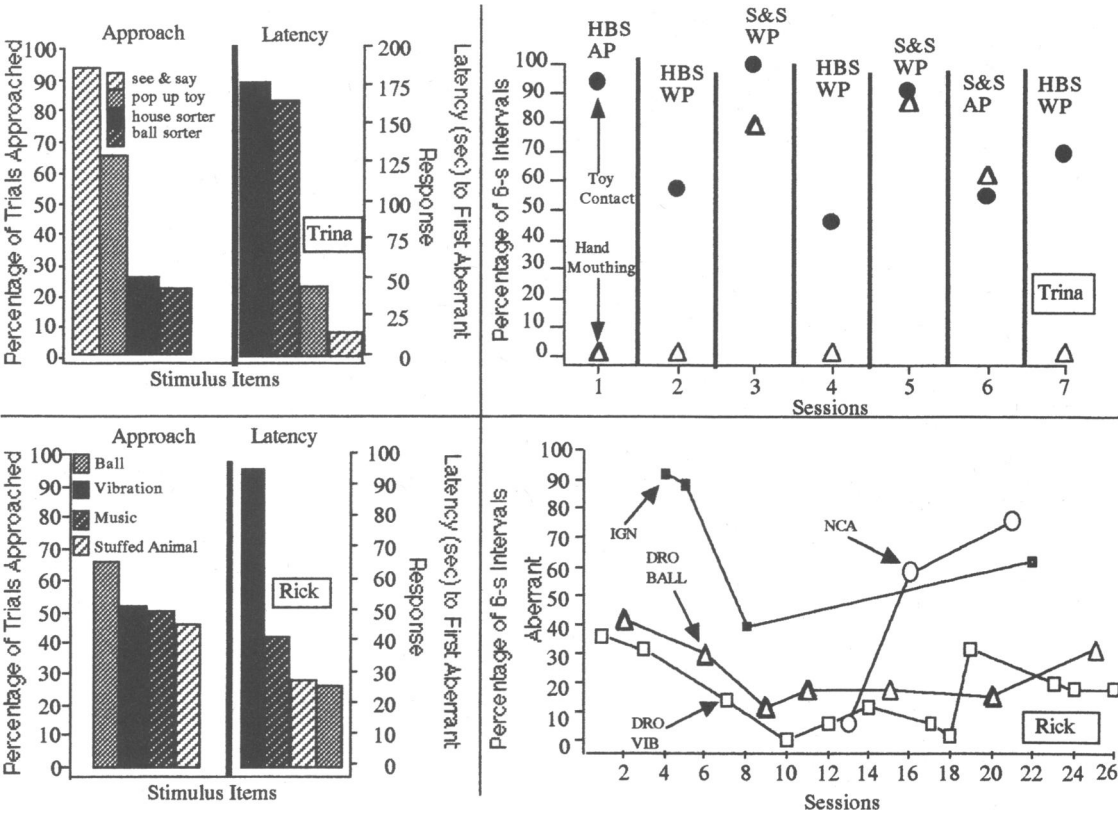
The children were exposed to four stimuli (Rick: ball, vibrator, radio, and stuffed animal; Trina: See & Say®, pop-up toy, house-shaped block sorter, and ball-shaped block sorter) using a modification of the forced-choice method described by Fisher et al. (1992). At least 15 presentations of each stimulus were completed (range, 15 to 25). The children were provided with access to the stimuli they approached until either an aberrant response occurred or 5 min elapsed. Rick was presented with each stimulus for 5 s before each paired presentation to ensure left-right orientation, and the items were held in front of him to ensure access.

Treatment. Trina's sessions were videotaped, and Rick's data were collected during the sessions. Data were collected on aberrant behavior, appropriate behavior, and toy contact (Trina only). Interobserver agreement was assessed during 82% of sessions. Average occurrence agreement was 98% for Rick and 94% for Trina.

For both children, treatment conditions were developed using stimuli identified as preferred using both dependent measures. Treatment utility was then tested across a series of 5- to 10-min analogue conditions. For Trina, treatment conditions consisted of the noncontingent presentation of each stimulus with and without parental interaction in the form of neutral comments (i.e., "you look pretty today," "Mark came to visit us") within a brief multielement design. For Rick, two differential reinforcement of other behavior (DRO) treatment conditions were compared to an ignore condition and a noncontingent attention condition within a multielement design. In the DRO conditions, stimuli were delivered contingent on Rick not engaging in aberrant behavior. Thus, if he engaged in aberrant behavior, stimuli were taken away from him; following removal, stimuli were redelivered contingent on nonoccurrence of aberrant behavior for 1 s. In the ignore condition, the stimuli were removed and the therapists did not interact with Rick. In the noncontingent social attention condition, the stimuli were removed and the therapist continuously interacted with Rick.

RESULTS AND DISCUSSION: The figure presents results from both Rick's and Trina's forced-choice and treatment assessments. For both children, a different stimulus was identified (top and bottom right panels) as most preferred based on each dependent measure. In both cases, the stimulus that was approached most often (ball for Rick; See & Say® for Trina) also resulted in the shortest latency. Trina's treatment data are shown in the top left panel (figure abbreviations: HBSAP = house block sorter with attention from parent, HBSWP = house block sorter without attention from parent, S&SAP = See & Say® with attention from parent, S&SWP = See & Say® without attention from parent). When the See & Say® was presented to Trina noncontingently, both hand mouthing and toy contact occurred at high levels. Conversely, when the house-shaped block sorter was delivered noncontingently, hand mouthing never occurred. These results suggest that the stimulus identified as preferred based on latency was the more potent reinforcer for Trina. However, without demonstrating a change in behavior via a response-stimulus contingency, this interpretation is made with caution.

Rick's treatment results are presented in the left panel (figure abbreviations: IGN = ignore, NCA = noncontingent attention, DRO



BALL = differential reinforcement of other behavior with the ball, DRO VIB = differential reinforcement of other behavior with the vibrator). Overall, the stimulus selected based on latency (i.e., vibrator) resulted in a slightly lower level of aberrant behavior than the stimulus selected based on approach responding (i.e., ball). However, when compared to the ignore and noncontingent attention conditions, the contingent delivery of both stimuli resulted in decreased aberrant behavior. This finding suggests that both dependent measures were useful for selecting potential reinforcers.

Based on the results obtained during these two case examples, it appears that latency may be a useful dependent measure during forced-choice assessments. However, given that the number of stimuli sampled was small and a limited number of treatment sessions were completed, these results should be regarded as preliminary.

REFERENCE

Fisher, W., Piazza, C., Bowman, L., Hagopian, L. P., Owens, J. C., & Slevin, I. (1992). A comparison of two approaches for identifying reinforcers for persons with severe and profound disabilities. *Journal of Applied Behavior Analysis*, 25, 491-498.

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